

ABSTRACT

A steam conditioning system comprising a steam conditioning valve 1 for depressurizing and desuperheating steam S by supplying moisture W in said conditioning valve. A discharge pipe 3 connected to the steam conditioning valve 1 has a horizontal section 3a, and said horizontal arrangement section 3a is provided with a moisture drain 4 or at a portion near the bottom. Condensed moisture W_1 is extracted from this moisture drain 4 and is recycled as moisture W to be supplied to the steam S in said conditioning valve 1. The steam conditioning valve 1 further has a reduced annular section 9 with a nozzle 5a disposed therein for injecting subcooled water mist W. A transport conduit 5 connects the drain 4 to nozzle 5a. Moisture W is drawn into steam flow S due to the Venturi effect caused by the pressure drop through the reduced annular section 9.